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1908

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ELIMINATION BILL

COMMITTEE ON MILITARY AFFAIRS
UNITED STATES SENATE

WASHINGTON
GOVERNMENT PRINTING OFFICE
1908

8-35534.

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1908

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A BILL

To increase the efficiency of the Army of the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President be, and he is hereby, authorized to prescribe a physical examination of all officers of the Army of the grades of major and of lieutenant-colonel to determine their fitness for promotion: *Provided,* That should any such officer fail in his physical examination and be found incapacitated for service by reason of physical disability contracted in line of duty, he shall be retired with the rank to which his seniority entitle him to be promoted; but should the incapacity be found to have resulted from his own misconduct, he shall be honorably discharged from the Army, with one year's pay.

SEC. 2. That when at the end of any fiscal year the average number of vacancies for the fiscal years subsequent to the passage of this Act in the grade of colonel in the cavalry, artillery, or infantry of the Army has been less than sixteen and eighty-four one-hundredths per centum of the authorized number of lieutenant-colonels in each arm, respectively; or in like manner when the average number of vacancies in the grade of lieutenant-colonel has been less than nine and eighty-nine one-hundredths per centum of the authorized number of majors; or in like manner when the average number of vacancies in the grade of major has been less than four and seventy-three one-hundredths per centum of the authorized number of captains; or in like manner when the average number of vacancies in the grade of captain

has been less than twelve and eight one-hundredths per centum of the authorized number of first lieutenants; or in like manner when the average number of vacancies in the grade of first lieutenant has been less than eighteen and eighty-nine one-hundredths per centum of the authorized number of second lieutenants, the necessary additional vacancies to bring the average in each grade in each arm up to the percentages above named shall be created as hereinafter provided.

SEC. 3. That upon the occurrence of a deficiency of vacancies in any grade, as set forth in section two of this act, the Secretary of War shall convene, as soon after the first of July as practicable, a board of five officers of the Army for the purpose of selecting from the active list of the several arms the necessary number to be retired: *Provided*, That if practicable, the grade of all officers composing such boards shall be senior to that of the officers to be considered by the board. The board shall have placed at its disposal the complete efficiency and medical records of all officers, as the list stood June thirtieth preceding, in those arms and grades wherein less than the required average of vacancies exists. Each member of said board shall swear or affirm that he will, without partiality, favor, or affection, and having in view solely the special fitness of officers and the efficiency of the Army, perform the duties imposed upon him by this act.

The board shall then proceed to select for retirement from the several grades the requisite number from among those officers found to be, from any cause, least qualified for further active service, the number taken from each grade being such as to cause the average number of vacancies therein to conform to the percentages set forth in the preceding section: *Provided*, That no

colonel shall be retired under the provisions of this section when the effect thereof would be to promote a lieutenant-colonel of less than three years' service as such, unless the total commissioned service of said lieutenant-colonel exceeds twenty-eight years; nor shall any lieutenant-colonel be retired under the provisions of this section when the effect thereof would be to promote a major of less than five years' service as such, unless the total commissioned service of said major exceeds twenty-five years; nor shall any major be retired under the provisions of this section when the effect thereof would be to promote a captain of less than ten years' service as such, unless the total commissioned service of said captain exceeds eighteen years; nor shall any captain be retired under the provisions of this section when the effect thereof would be to promote any first lieutenant whose total length of commissioned service is less than ten years; nor shall any first lieutenant be retired under the provisions of this section when the effect thereof would be to promote any second lieutenant of less than four years' commissioned service: *And provided further*, That in computing the total length of commissioned service there shall be included therein any commissioned service in the United States Volunteers. The proceedings and recommendations of the board shall be in writing; shall be signed by all the members, a majority governing, and shall be transmitted to the President, who shall thereupon by order transfer to the unlimited retired list the officers who have been selected as provided in this act.

SEC. 4. That each officer retired pursuant to the provisions of this act, except as provided in section one hereof, shall be entitled to retired pay at the rate of a per centum of the pay he was receiving at the date of his retirement, which

per centum shall be equal to the product of the square of the nearest number of complete years of his service as a commissioned officer, multiplied by one-twelfth: *Provided*, That for terms of commissioned service less than ten complete years, each officer retired under the provisions of this act, except as provided in section one hereof, shall be entitled to one year's pay in lieu of all other retired pay: *And provided further*, That retired pay shall never exceed seventy-five per centum of the maximum pay of the grade.

SEC. 5. That in computing the authorized commissioned strength in any grade, as required in section two hereof, the officers detailed in accordance with existing law for stated tours of duty in the various staff departments shall be included in that arm wherein they hold permanent commissions.

SEC. 6. That all laws or parts of laws in conflict with the provisions of this act are hereby repealed, and nothing in this act shall be construed as changing the method of promotion now provided by law.

WAR DEPARTMENT,
Washington, May 25, 1908.

SIR: Referring to Senate bill No. 3925, Fifty-ninth Congress, I have the honor to transmit herewith a new draft of a bill (inclosure 1) to the same effect, but revised in accordance with the changes in the organization of the Army produced by legislation had subsequent to the time when the former draft was drawn.

The purpose of the bill is to increase the efficiency of the Army, and particularly that of the fighting branches. The importance of the bill can not be measured by its brevity. It seeks to provide a remedy for a condition of affairs in the Army, bad now, but certain to become intolerable unless a cure is applied. That condition is the result of stagnation in promotion, combined with unavoidable failure in practice of retiring and examining boards to remedy the evil.

The first section merely extends the provisions of existing law, so far as physical examination before promotion is concerned, to the field grades.

Now, there is no further examination after the grade of major is reached. The bill provides such examination to ascertain physical fitness. It provides further that should the average number of

vacancies per year from all causes in each grade from colonel to first lieutenant be less than a certain per cent of the total number of officers in the grade next below, additional vacancies to bring the total up to the required number shall be provided by weeding out the least efficient officers on the active list.

They are selected by a sworn board, impartially, and are retired without increase of rank and with pay proportioned to their length of service.

The selections for retirement are made solely with a view of benefiting the service by putting out of active service those (in limited number) who, from any cause, are found least qualified for duty. The selections come from the various grades in certain proportions calculated to maintain a fair average of promotion and to bring officers, before their period of usefulness is nearly over, into positions where their activities will insure good organizations.

An object of the bill is to secure what is absolutely indispenable to keep heart in our fighting units, namely, some prospect of promotion. Notably in accomplishing this purpose it adds a second and very important benefit to the service by eliminating those who, in the lapse of years and from any cause, have ceased to be fully equal to the work the Government has a right to expect. The proportion of field officers to company officers is such as to compel slow promotion everywhere in the service; in fact, it is of the utmost importance that promotion should be at least fair and officers put in responsible positions while in the fullness of vigor.

It is a remarkable fact that our organization and our promotion laws are such as to insure in the greater part of the fighting force the minimum of promotion with the maximum of rust and decrepitude, exactly the reverse of what a wise policy would dictate. It is to remedy in some degree this unfortunate and unwise condition that this bill is offered. It makes no extravagant demands on the Treasury. It does injustice to no man. It is believed that it would, in practice, operate most beneficially to give our mobile army one of the most essential features of such a force, i. e., field and company officers possessed of zeal and physical energy.

This bill, it is believed, will correct the two evils mentioned above which exist among the officers of the Army: The evil of superannuation and the evil of the presence of inefficient members, whom existing laws are not efficacious in eliminating.

The evil of superannuation arises from the character of the organization of the personnel of the officers. It is evident that in a body which is entered by its component members at an approximate given age—about 23 years for the officers of the Army—and left at a stated age—64 years for officers—and in which advancement is had regularly in the order of seniority, the proportion of his total time of service that an individual will spend in each one of the grades of the organization will depend upon the ratio which the number in each grade bears to the total number in the organization—that is, if the numbers in the high grades are small in comparison with the total strength of the organization, the proportion of his service which the individual will spend in the high grades will be small in comparison with his total service. In other words, he will reach the high grades late in life. Similarly, if the numbers in the high grades are large in comparison with the total number, the individual will spend a cor-

respondingly large proportion of his life in the high grades, or will reach the high grades at an early age.

The proportion of officers in the different grades of an army is approximately the same in all services of the world, and has been arrived at as the result of the world's experience of what has been found conducive to military efficiency. In a fighting organization in the United States something over a thousand men are placed under the command of a single officer, a colonel; there is one general assistant, who can take the place of the colonel upon occasion, a lieutenant-colonel. The organization, a regiment, is divided into three parts, each of which is under a commander, a major, and each of the three parts, or battalions, is divided into four companies, each of which has a captain and two lieutenants. In addition there are a certain number of staff officers of a regiment, whose duties are general.

Regiments are grouped together into larger organizations, under command of higher officers, and these again into still larger organizations, under the command of still higher officers. The higher commanding officers have staff officers to look after the general duties connected with the entire body, the staff officers having rank appropriate to the duties which they perform. The division into grades in the United States is such that, in the line of the Army and in the staff organizations which are formed by detail of officers from the line, the general officers constitute about 0.9 per cent of the whole number, colonels about 2.6 per cent, lieutenant-colonels about 3 per cent, majors about 8.03 per cent, captains about 31 per cent, first lieutenants about 27.9 per cent, and second lieutenants about 26.8 per cent.

The consequence of these proportions is that, in the ordinary course of promotion by seniority, considering casualties that occur through death, resignation, dismissal, disability, and retirement at 64 years of age, officers will reach the grade of first lieutenant at about 29.5 years of age, that of captain at about 38.5 years of age, that of major at about 51.8 years of age, that of lieutenant-colonel at about 57 years of age, and that of colonel at about 59.5 years of age. It is possible to reduce these ages only by selecting certain individuals for advancement beyond that which they would otherwise receive, which process would affect only themselves and would correspondingly retard the promotion of others, thus not affecting the average ages of promotion, or to eliminate by some artificial process a sufficient number to cause those remaining to receive their promotions to the different grades at what might be considered reasonable ages. It is the object of this bill to accomplish the latter process, effort being made to insure that the officers eliminated in order to accomplish the more rapid promotion of those who remain shall be the least efficient in their grades.

The bill provides that when the number of promotions from each grade up to that of colonel shall not average annually a stated percentage of the total number in that grade by reason of normal casualties, a sufficient number of vacancies shall be artificially created by selection to bring the number of promotions up to the stated percentages. The percentages given have been computed so as to cause the promotion of officers to the grade of captain at an average of 34 years, to that of major at 44 years, to that of lieutenant-colonel at 50 years, and to that of colonel at 54 years of age. The bill has been framed to apply only to the line and to those staff corps which are recruited from the line. It is found by computation that in addition

to those which statistics show may be counted upon as dropping out by ordinary casualties, it would be necessary to eliminate annually by the operation of the act about 38 lieutenants, about 44 captains, about 14 majors, about 6 lieutenant-colonels, and about 3 colonels; that is, about 3.8 per cent of the first lieutenants, about 3.97 per cent of the captains, about 4.67 per cent of the majors, about 5.28 per cent of the lieutenant-colonels, and about 3.42 per cent of the colonels.

From all causes there would occur annually in the organization considered about 196 vacancies, which would have to be filled by the appointment of that number of second lieutenants. Of the second lieutenants about 182 would annually reach the age of 27.09 years and be promoted to the grade of first lieutenant, the remainder having gone out by ordinary casualties. Of the first lieutenants about 159 would reach the age of 34 each year, and of these about 121, the required percentage, would be promoted to the grade of captain; the remainder would be eliminated by the operation of this act. Of the captains about 96 would annually reach the age of 44, and of these about 52 would be promoted to the grade of major, the others falling out under the act. Of the majors about 42 would annually reach the age of 50, and of these about 29 would be promoted, the others going out under the act. Of the lieutenant-colonels about 24 would annually reach the age of 54, and of these 18 would be promoted, the others going out under the act. Of the colonels 3 would be eliminated under the operation of this act, some would go out from other causes, and the remainder and the general officers not objects of other casualties would reach the age of 64 and be retired at that age, amounting to about 6 per year.

Taking into consideration the retirements from those branches of the Army which are not affected by the bill, the ulitmate composition of the retired list, after the act should have been in operation long enough to produce a normal condition, would be as follows, including those retired for all causes which carry retired pay:

Lieutenants	1,321
Captains	1,488
Majors	513
Lieutenant-colonels	193
Colonels	142
Brigadier-generals	82
Major-generals	21
Lieutenant-generals	3
Total	3,763

Under the present laws the ultimate composition of the retired list will be as follows:

Lieutenants	214
Captains	512
Majors	245
Lieutenant-colonels	107
Colonels	[a] 360
Brigadier-generals	93
Major-generals	22
Lieutenant-generals	4
Total	1,556

[a] The large number of colonels upon the retired list, in comparison with the number of lieutenant-colonels, is due to the fact that at the grade of colonel officers commence to retire by reason of reaching the limiting age, 64 years.

It is thus seen that the operation of the proposed act would much increase the size of the retired list and, if no offsetting cause were introduced, the expense of the military establishment would be made greater; not, however, in proportion of the increased size of the retired list, because by examining the retired list it will be seen that the increase in the retired list under the proposed act is very largely in the lower grades, and that the number of retired officers in the higher grades would be very considerably less than under the present laws. The effect would, however, still be a considerable increase in cost, and to meet this it is provided that the pay of officers of less than thirty years' service, when retired, shall be a materially less percentage of their active pay than that which is provided for officers retired under the present laws. It is proposed that the pay of officers retired under this act shall be a percentage of their active pay represented by one-twelfth of the square of the number of years of their service as officers, up to thirty years. This makes the pay of officers retired after thirty years' service, or greater, 75 per cent of their active pay; which period of service has by existing laws been recognized as that for which Congress has been willing to award 75 per cent of their active pay, both to officers and enlisted men.

For service of less than thirty years the retired pay diminishes in more rapid proportion than the length of service itself under this plan, so that officers retiring with little service, and at correspondingly younger ages, will receive less than a proportionate percentage of their retired pay. Thus officers retired as first lieutenants after about eleven years of service, in order to make room for the statutory number of promotions of second lieutenants, will receive about 10 per cent of their active pay, or about $240 a year; officers retired as captains, after about twenty years' service, will receive 33⅓ per cent of their active pay, or about $1,120 a year; officers retired as majors after about twenty-seven years' service, will receive about 60 per cent of their active pay, or about $2,400 a year; officers retired as lieutenant-colonels will probably have had nearly thirty years of service, and officers retired as colonels will certainly have had such length of service, and thus receive 75 per cent of their active pay, as under the present laws.

These illustrations give about the maximum retired pay for officers of the different grades and apply to officers retired at about the maximum ages for their grades. The minimum ages of retirement for the different grades would be about as follows: For first lieutenants, 28 years; for captains, 35 years; for majors, 45 years; for lieutenant-colonels, 51 years, and for colonels, 55 years; and the corresponding rates of pay would be, for first lieutenants, about 2 per cent of their active pay, or about $44 a year; for captains, about 12 per cent of their active pay, or about $374 a year; for majors, about 40 per cent of their active pay, or about $1,600 a year; for lieutenant-colonels, about 65 per cent of their active pay, or about $2,925 a year. No retired colonel would receive less than 75 per cent of his active pay.

Noting the low percentage which would be received by first lieutenants retired at the youngest possible age, attention is invited to the feature of the bill which provides that officers retired after less than ten years' service as such shall receive upon retirement one year's pay in lieu of further annual pay; this to avoid the continued payment of insignificant sums.

Under the supposition that officers retired by the operation of this act will be so retired at the highest ages possible in their grades, and consequently with the greatest retired pay, the total cost of the retired list of the Army is computed to eventually become $5,869,704.23 per annum. Under the present laws the total cost of the retired list is computed to eventually become $4,623,388.52. This cost of the retired list will thus be increased by the proposed act $1,246,315.71. But by reason of the fact that the officers of the active list will be younger under the new arrangement, and therefore drawing a less amount as increased pay for length of service, the cost of the active list will be reduced from $12,402,694.14 to $12,174,637.97, a reduction of $228,056.17, so that the net increase in the pay of officers of the Army will be $1,018,259.54. If, however, the officers retired by operation of this act shall be retired at the youngest possible ages in their grades, and therefore with the least retired pay, the cost of the retired list will be $4,421,150.80; and there will be effected by the operation of the act a saving, from the expense under the present laws, of $430,293.89.

The difference in expense will therefore fall somewhere between the increase and the decrease mentioned; but as it is not possible to say just where in their grades the retired officers will be taken from greater exactness of prediction as to expense is not possible. It is to be noted that the ultimate cost of the retired list under the present law is stated to be considerably greater than the $2,941,934.47, carried by the current act for the support of the Army. The reason for this increase, notwithstanding the fact that a good many officers have recently been given a higher grade upon retirement, is that the present retired list has been recruited almost entirely from an army of considerably less size than that which exists under the present laws.

The bill does not make any attempt to rearrange the officers who shall not be eliminated in accordance with their merit, and consequently there is no assurance of the advantage to the military service of the service of the most capable officers in the higher grades. Although the bill thus falls short of the best measure which might be imagined, it is believed to carry all that is practicable at the present time on account of the widely prevalent fear that it would not be possible to insure the selection of officers for promotion in general accordance with their merit, and it secures a very great increase of efficiency at the expense not of the United States, but of those who shall be judged by boards of experienced officers to be the ones who, on account of being the least efficient, can best be spared from the service.

Although the officers thus eliminated from active service are retired, at the lower ages, with a very moderate percentage of their active pay, they are still believed to be treated with proper consideration, especially when the consequences of lack of success in civil life are borne in mind. Officers retired at 40 years of age will receive about $800 a year as retired pay, and will have all of their time at their disposal for the purpose of increasing their incomes; those retired with a less amount will be at ages sufficiently young to enable them to perform work which should bring them in, when added to their retired pay, enough to preserve them from hardship. It should be remembered that those retired through loss of health, or other disability incurred in the line of duty, will receive the 75 per cent of their active pay which is now provided by law. It is believed that the bill strikes

a just mean between expense and due consideration for all concerned. If higher pay is to be granted to those eliminated, Congress must consent to an increase of cost of the military establishment; if less drastic elimination be insisted upon, promotion to the different grades must be accepted at greater ages than the very mature ones which are proposed.

I do not consider the rates of retired pay as over generous, but have fixed them at the figures given in order to prepare a bill to which there can be no objection on the ground of increased cost. Should it be desired to consider the payment of more generous retired salaries to eliminated officers than those contemplated by the percentage law given in the bill, the costs of other more generous laws have been computed. If officers retired under the operation of the bill should receive a percentage of their active pay expressed as follows: $\%=.456(\text{years})^{\frac{3}{2}}$, the cost of the military establishment would be increased $503,018.70 over and above the cost which would occur under the law $\%=\frac{1}{12}(\text{years})^2$ as provided in the bill. Similarly, if such officers should receive a percentage represented by $\%=2.5$ (years) the cost of the military establishment would be increased $1,198,108.62. In each case the increase in cost is entirely in the retired list. The several percentage schemes are set forth graphically in the sheet of curves herewith inclosed.

A substantial advantage carried by the scheme is that there will be on the retired list, and under pay from the Government, about 576 officers, ultimately, under 45 years of age, who will therefore be properly subject to summons into the active service of the Army upon the occasion of war, or of active preparation for war.

The line and detailed staff of the Army has been taken as consisting of—

Second lieutenants	963
First lieutenants	1,006
Captains	1,106
Majors	289
Lieutenant-colonels	107
Colonels	94
Brigadier-generals	25
Major-generals	7
Lieutenant-generals	1
Total	3,598

The statistics in regard to the ordinary casualties, death, resignation, dismissal, retirement for disability, etc., have been taken from the records of The Military Secretary's Office for the years 1883 to 1897, inclusive, and changed proportionately to accord with the different numbers and ages of the grades in the present Army and under the proposed scheme.

EXPLANATION OF THE DIAGRAMS.

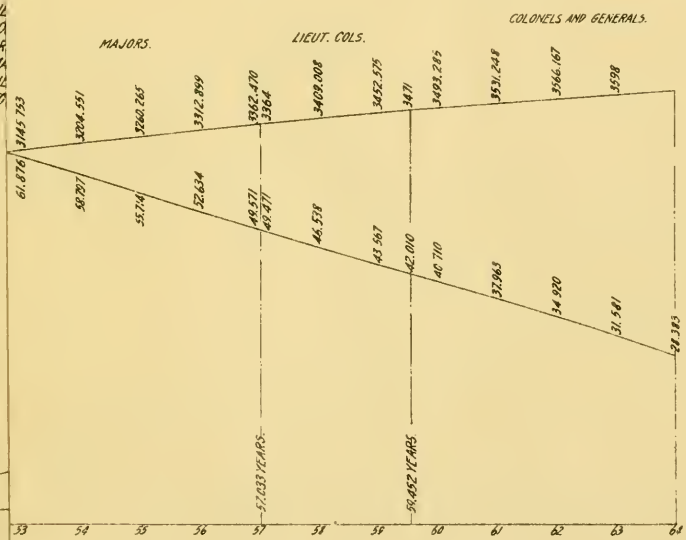
[Inclosures 2 and 3.]

The diagram entitled "Promotion under laws existing at date" has a table of which the heading of the first column is "Eliminated annually." This table shows the number of officers of all grades who are eliminated each year from all causes. Those eliminated by retirement with 75 per cent of their active pay go out either for disability, for length of service, or by reason of reaching the limiting age of 64

ULTIMATE COMPOSITION OF RETIRED LIST.

BRANCH OF SERVICE	LIEUTS	CAPTAINS	MAJORS	LIEUT. COLS	COLONELS	BRIG. GENS.	MAJ. GENS.	LIEUT. GENS.	TOTALS.
ORGANIZATION CONSIDERED	197.33	423.42	153.07	76.48	320.99	86.75	21.69	4.34	1284.09
ENGINEER CORPS	5.58	4.69	11.32	11.95	24.37	2.44	0.	0.	60.35
MEDICAL DEPT.	3.16	75.51	67.06	18.31	14.55	3.23	0	0.	187.82
CHAPLAINS	1.73	8.39	13.56	0.	0	0	0.	0.	23.68
TOTALS.	213.82	512.01	245.01	106.74	359.91	92.42	21.69	4.34	1555.94

N RETIRED LIST.	
OL NUMBER	NUMBER UNDER 62 YEARS OF AGE
84.09	98.41
60.35	4.20
7.82	27.54
23.68	2.06
5.94	132.21



AXIS OF NUMBERS.

137.393
34.902
137.393
272.295
23
24

NOTE:
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CURVE

DR'G PERTAINS TO			REVISIONS
CLASS	DIV	AL. PLATE	
			NOV. 7, 1907.
			MAY 13, 1908

PROMOTION UNDER LAWS EXISTING AT DATE.

APR. 1. 1906.

SUBMITTED: C.H.S.

BUREAU OF ORDNANCE, DEPARTMENT U.S.A.

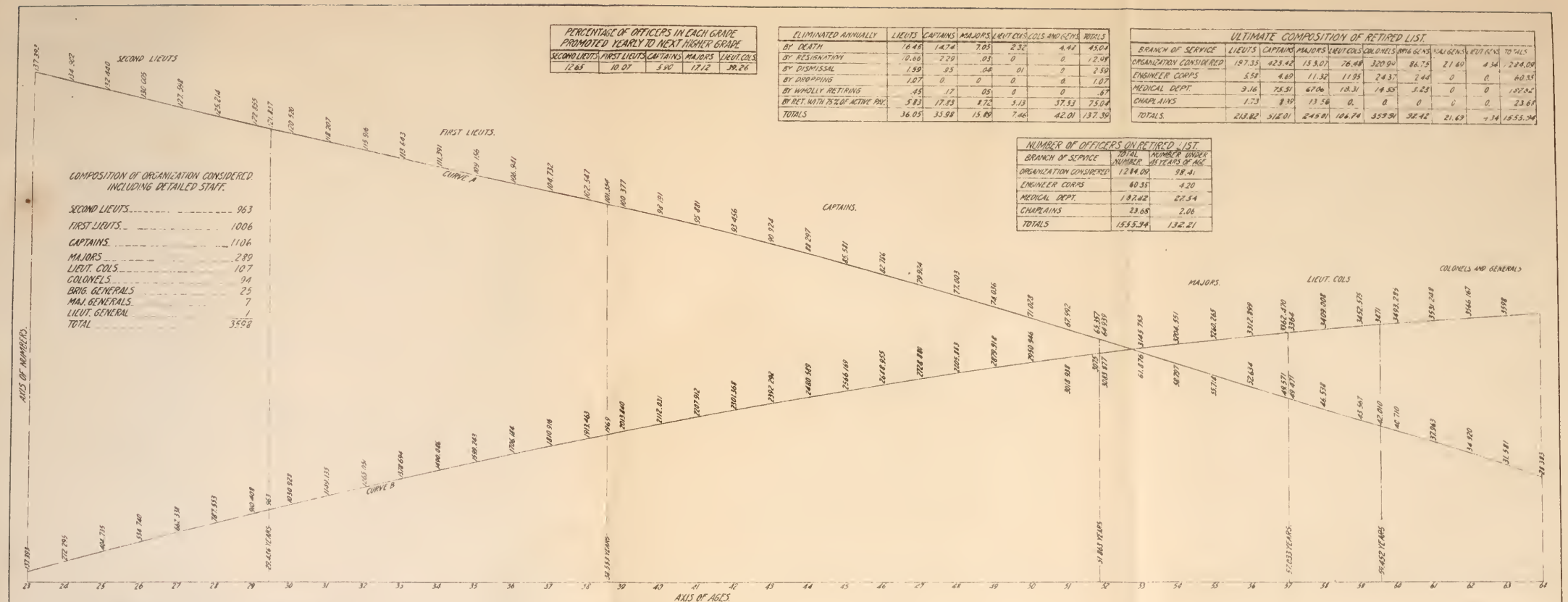
EXAMINED: Stephen Sheetine — Jr. Ordnance Department, U.S.A.

APPROVED: William Crozier — Brig. Gen., Chief of Ordnance, U.S.A.

CLASS 16	DIVISION 18	DRAWING 6	FILE

PLATE

ANDREW B GRAHAM



PERCENTAGE OF OFFICERS IN EACH GRADE PROMOTED YEARLY TO NEXT HIGHER GRADE				
SECOND LIEUTS.	FIRST LIEUTS.	CAPTAINS	MAJORS	LIEUT. COLS.
12.65	10.07	5.90	17.12	39.26

ELIMINATED ANNUALLY	LIEUTS	CAPTAINS	MAJORS	LIEUT COLS	COLS AND GENS	TOTALS
BY DEATH	16.45	14.74	7.05	2.32	4.42	45.04
BY RESIGNATION	10.66	2.29	.03	0	0	12.98
BY DISMISSAL	1.59	.95	.08	.01	0	2.59
BY DROPPING	1.07	0	0	0	0	1.07
BY WHOLLY RETIRING	.45	.17	.05	0	0	.67
BY RET. WITH 75% OF ACTIVE PAY.	5.83	17.83	9.72	5.13	37.53	75.04
TOTALS	36.05	35.98	15.89	7.46	42.01	137.39

ULTIMATE COMPOSITION OF RETIRED LIST.								
BRANCH OF SERVICE	LIEUTS	CAPTAINS	MAJORS	LIEUT COLS	COLONELS	BRIG GENS	MAJ GENS	LIEUT GENS	TOTALS
ORGANIZATION CONSIDERED	197.35	423.42	153.07	76.48	320.90	86.75	21.60	4.34	1,284.09
ENGINEER CORPS	5.51	4.69	11.32	11.95	24.37	2.44	0	0	60.35
MEDICAL DEPT.	3.16	75.51	67.06	18.31	14.35	5.23	0	0	187.42
CHAPLAINS	1.73	8.39	13.56	0.	0	0	0	0.	23.68
TOTALS.	213.82	512.01	245.01	106.74	359.94	92.42	21.60	4.34	1555.34

NUMBER OF OFFICERS ON RETIRED LIST.		
BRANCH OF SERVICE	TOTAL NUMBER	NUMBER UNDER 35 YEARS OF AGE
ORGANIZATION CONSIDERED	1284.09	98.41
ENGINEER CORPS	60.35	4.20
MEDICAL DEPT.	187.42	22.54
CHAPLAINS	23.68	2.06
TOTALS	1555.34	132.21

COMPOSITION OF ORGANIZATION CONSIDERED. INCLUDING DETAILED STAFF.

SECOND LIEUTS	963
FIRST LIEUTS.	1006
CAPTAINS.	1106
MAJORS	289
LIEUT. COLS	107
COLONELS	94
BRIG. GENERALS	25
MAJ. GENERALS	7
LIEUT. GENERAL	1
TOTAL	3598

NOTE

CURVE A – ANY ORDINATE OF THIS LINE REPRESENTS THE NUMBER IN THE ORGANIZATION AT THE AGE REPRESENTED BY THE CORRESPONDING ABSCISSA.

CURVE B – ANY ORDINATE OF THIS LINE REPRESENTS THE TOTAL NUMBER IN THE ORGANIZATION UP TO AND INCLUDING THE AGE REPRESENTED BY THE CORRESPONDING ABSCISSA

COST OF ACTIVE LIST. ORGANIZATION CONSIDERED	$10254353.03
" " " " ENGINEER CORPS.	583338.38
" " " " MEDICAL DEPT.	1339195.42
" " " " CHAPLAINS	164907.71
TOTAL COST OF ACTIVE LIST OF ARMY	$12442694.14
COST OF RETIRED LIST. ORGANIZATION CONSIDERED	$3862647.66
" " " " ENGINEER CORPS.	196136.87
" " " " MEDICAL DEPT.	503281.66
" " " " CHAPLAINS	61322.33
TOTAL COST OF RETIRED LIST OF ARMY.	$4623388.52
AGGREGATE COST OF MILITARY ESTABLISHMENT.	$17066082.66

SCALE OF ORDINATES - CURVE A: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110

SCALE OF ORDINATES - CURVE B: 0, 500, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500

SCALE OF ABSCISSAE (YEARS): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

DEG PERTAINS TO			REVISIONS
CLASS	DIV	AL PLATE	NOV. 7, 1907. MAY 12, 1908

PROMOTION UNDER LAWS EXISTING AT DATE

APR. 1, 1906.

CHIEF OF BUREAU OF STATISTICS

CHIEF OF BUREAU OF STATISTICS U.S.A.

CLASS 16 | DIVISION 18 | DRAWING 6 | FILE

PLATE

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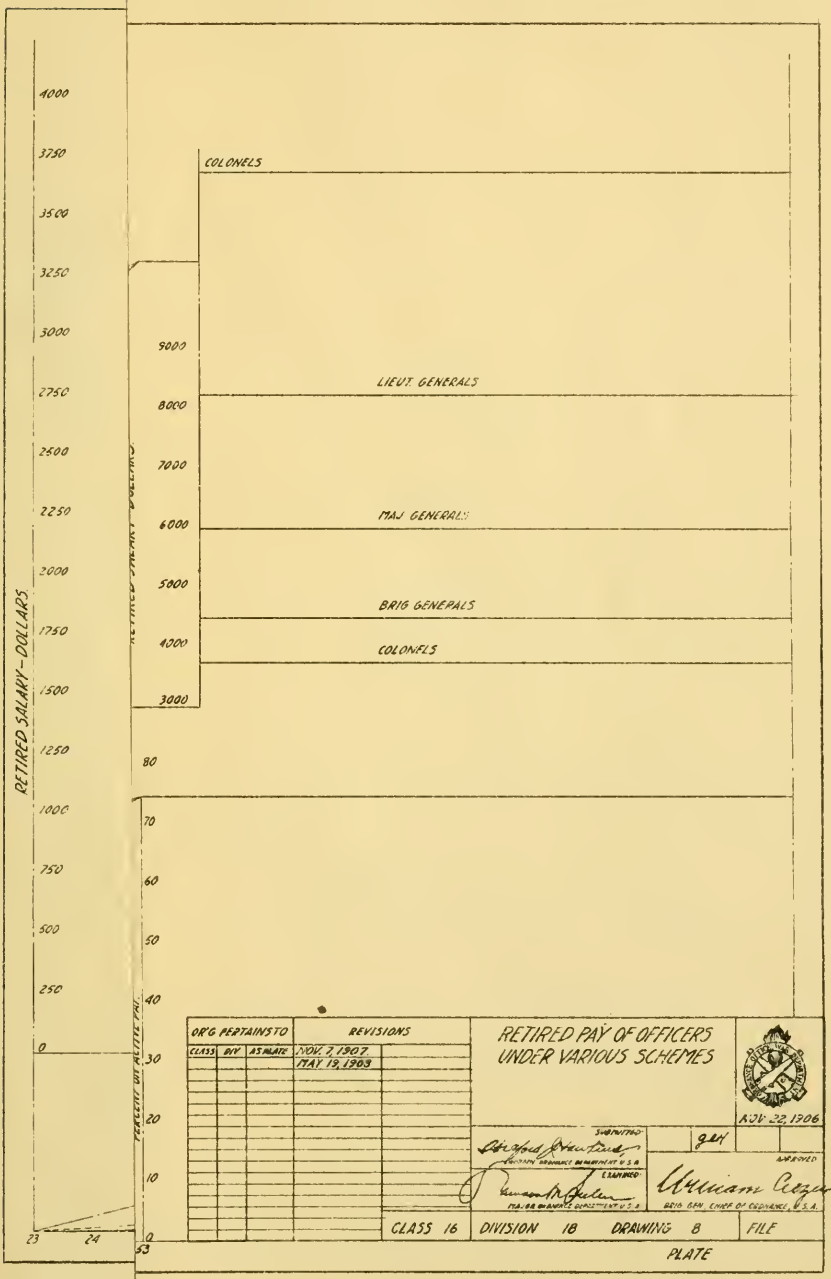

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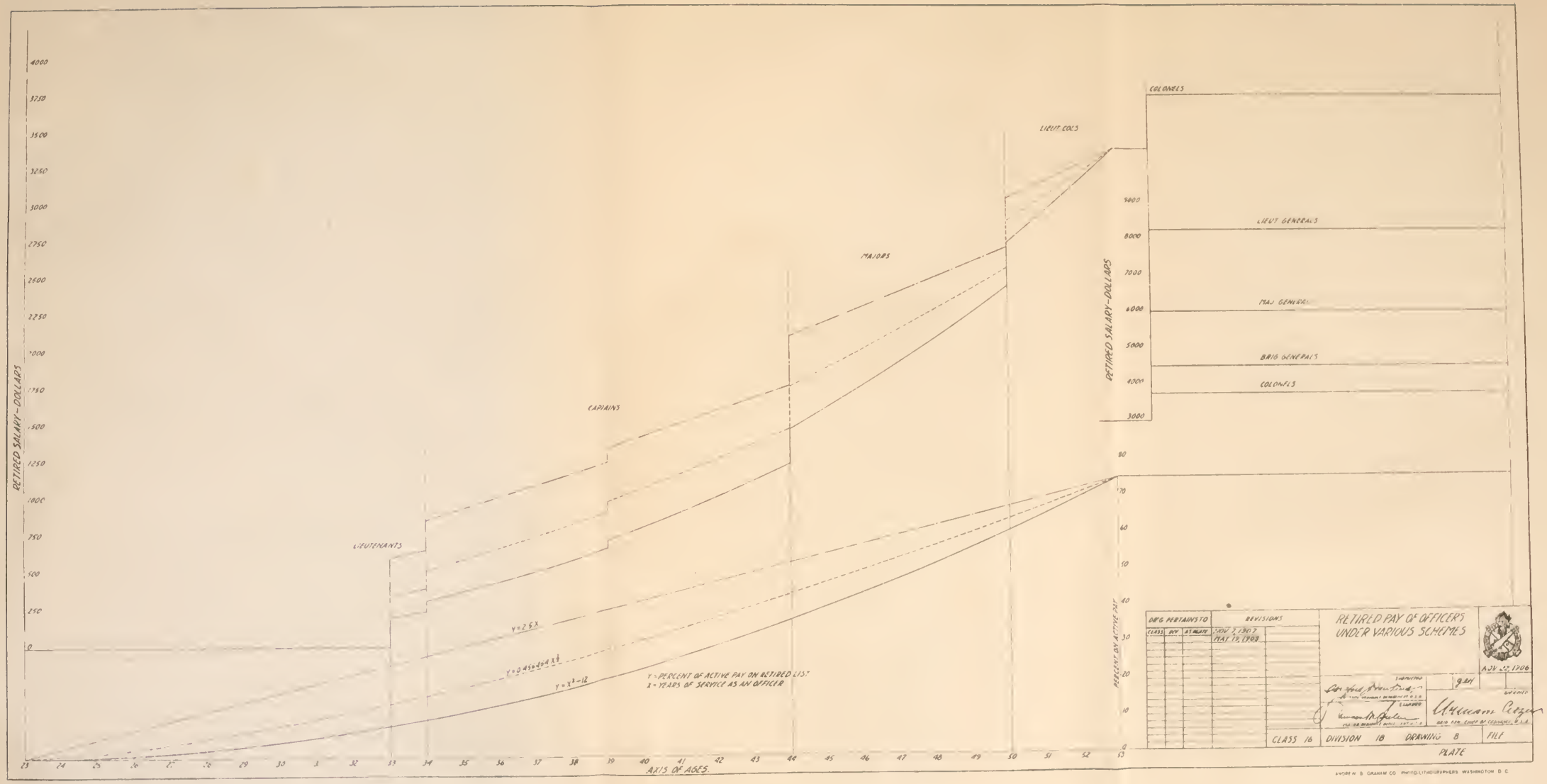

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years. Most of the colonels and generals eliminated are retired for the last reason. The total number of casualties is seen to amount to 137.393 per year; this number of second lieutenants must therefore come into the Army each year in order to keep up the organization. This number is plotted as the first ordinate or vertical distance from the horizontal line marked "Axis of ages" up to the beginning of the curve (curve A) corresponding to the age 23 years, which is taken as the average of entry into the service.

The numbers along the horizontal line, commencing at 23, indicate the various ages of officers of the Army from 23 years, the age of entry, up to 64 years, the age of compulsory retirement. The vertical distances from the horizontal line up to the curve are proportional to the number of officers, which is printed at intervals corresponding to one year along the curve. The second ordinate, 134.902, shows the number who are still in service at the age of 24, while the third ordinate, 132.440, shows the number still remaining at the age of 25, etc. That is, each ordinate of the curve A shows the number of the 137.393 officers entered as second lieutenants at the age of 23 who are still in the service at the age corresponding to the ordinate. Thus, glancing along the horizontal line, we come, say, to the figure 35, and looking up from this figure to curve A, we see the corresponding number 109.156. This means that there are 109.156 officers at the age of 35, the difference between this number and 137.393, or 28.237, having been eliminated in the twelve years that have passed by the different natural causes mentioned in the table. We thus see that by the time the officers who entered at 23 have reached the age of 64 there are only 28.383 of them remaining in the service. These will of course be retired for age. As the same process is repeated each year, it follows that this number of officers will be annually retired by reason of having reached the age of 64.

Looking at curve B, we notice that the ordinate corresponding to 23 years, 137.393, is the same as the first ordinate of curve A. This means that there are in the service 137.393 officers whose average age is 23 years. The second ordinate, 272.295, is the sum of the first two ordinates of curve A, and means that there are this number of officers up to the class whose average age is 25 years. The third ordinate, 404.735, is the sum of the first three ordinates of curve A, and means that there are 404.735 officers up to the class whose average age is 26 years. Similarly, any ordinate of curve B is the sum of the ordinates of curve A up to and including the corresponding average age, and indicates the number of officers in the service of all ages from the entering age, 23, up to and including the age corresponding to the ordinate considered. Thus, looking again along the horizontal line to the age 35, we see that there are 1,599.243 officers in the service up to and including the class whose average age is 35 years. Naturally the ordinate corresponding to the age 63, 3,598, is the total number of officers in the Army as allowed by its organization.

Under the heading "Composition of organizations considered, including detailed staff," there is given the number of officers of each grade who are included in the line of the Army and those staff departments whose members are detailed from the line, the total number being 3,598, or the total considered in computing curves A and B. This table shows that there are 963 second lieutenants in the organization considered. Now, running along curve B until we come to

the number 963, we see that for this number the corresponding average age is 29.436 years; that is, all the second lieutenants are included between the average ages of 23 and 29.436 years. In other words, a second lieutenant gets a promotion to a first lieutenancy at an average age of 29.436 years. Adding together the first and second lieutenants in the organization, we find that the sum is 1,969, and running along the curve B until we reach this figure we find the corresponding average age is 38.553 years. That is, the average ages of first and second lieutenants include the ages from 23 to 38.553; or, in other words, an officer gets his promotion from first lieutenant to captain at the latter age.

Similarly, we find that the sum of the second and first lieutenants and captains is 3,075, and by curve B we see that 3,075 officers are included up to the average age of 51.863 years, and this is the age at which an officer receives a promotion to a majority. By the same process we find that an officer receives his promotion to a lieutenant-colonelcy at the average age of 57.033 years, and to a colonelcy at the average age of 59.452 years. As promotion by seniority ends at the grade of colonel there is no way of telling at what age an officer becomes a general officer. He may, in fact, become a general officer at any age, but if he is promoted to such a grade at an earlier age than 59.452 years he will thereby keep back some other officer and increase the average age of promotion to each grade up to the grade to which he is thus promoted.

Running along the horizontal line to the average age at which second lieutenants are promoted to first lieutenants (29.436 years), and then glancing up to curve A, we see that the number at that average age is 121.837; that is, this is the number of second lieutenants who are annually promoted to first lieutenancies. Similarly, taking the average age of promotion to a captaincy (37.553 years), the corresponding number at that age, according to curve A, is 101.354, and this is the number of first lieutenants who are annually promoted to captaincies. Similarly, the number of captains who are annually promoted to majorities is 65.357; the number of majors annually promoted to lieutenant-colonelcies is 49.471; and the number of lieutenant-colonels annually promoted to colonelcies is 42.010. In the table headed "Percentage of officers in each grade promoted yearly to next higher grade" the figures are given as the percentage of the number in each grade respectively. That is, the 121.837 second lieutenants who are annually promoted to first lieutenancies form 12.65 per cent of the number in that grade; the 101.354 first lieutenants who are annually promoted to captaincies form 10.07 per cent of the number in the grade of first lieutenant, etc.

Those who are retired annually from the organization considered are supposed to suffer thereafter only the normal death rate, and they therefore form a body whose numbers and composition can be computed from proper mortality tables. Taking the numbers retired from each grade, in accordance with the first-mentioned table, and supposing the process of retirement to continue until the total number of deaths annually in each class just equal the acquisitions from new retirements, the ultimate composition of the retired list is given in the table with that heading, in which the first line refers to the organization considered and the recruitment of the retired list from that organization alone. In order to arrive at the ultimate compo-

NOTE:

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CURVE A - ANY ORDINATE OF THIS LINE REPRESENTS THE NUMBER IN THE GRADE AT THE AGE REPRESENTED BY THE CORRESPONDING ABSCISSA

CURVE B - ANY ORDINATE OF THIS LINE REPRESENTS THE TOTAL NUMBER IN THE GRADE UP TO AND INCLUDING THE AGE REPRESENTED BY THE CORRESPONDING ABSCISSA

COMPOSITION OF ORGANIZATION CONSIDERED INCLUDING DETAILED STAFF.

SECOND LIEUTS.	963
FIRST LIEUTS.	1006
CAPTAINS	1106
MAJORS	289
LIEUT. COLS.	107
COLONELS.	94
BRIG. GENERALS	25
MAJ. GENERALS	7
LIEUT. GENERAL	1
TOTAL.	3598

PERCENTAGE OF OFFICERS IN EACH GRADE PROMOTED YEARLY TO NEXT HIGHER GRADE

SECOND LIEUTS.	FIRST LIEUTS.	CAPTAINS.	MAJORS	LIEUT. COLS.	COLONELS
18.69	12.08	4.73	9.86	16.84	9.84

PERCENTAGE OF OFFICERS IN EACH GRADE ELIMINATED ANNUALLY (THIS ACT.)

FIRST LIEUTS.	CAPTAINS	MAJORS	LIEUT. COLS.	COLONELS
3.83	3.98	4.67	5.28	3.42

ELIMINATED ANNUALLY	LIEUTS.	CAPTAINS	MAJORS	LIEUT. COLS.	COLONELS	GENERALS	TOTALS
BY DEATH	13.99	11.75	4.08	1.49	2.15	1.02	36.68
BY RESIGNATION	15.73	2.05	.03	0.	.02	0.	17.83
BY DISMISSAL	1.11	.71	.04	.02	.03	0	1.91
BY DROPPING	.74	0.	0	0.	0.	0.	.74
BY WHOLLY RETIRING	.31	.13	.01	0	.01	0	.50
BY RET. WITH 75% OF ACTIVE PAY	3.25	10.57	6.03	3.01	5.33	8.23	34.42
BY OPERATION OF THIS ACT	37.53	44.01	13.51	5.65	3.22	0.	103.94
TOTALS	74.68	69.22	23.74	10.57	8.76	9.25	196.22

ULTIMATE COMPOSITION OF RETIRED LIST.

BRANCH OF SERVICE	LIEUTS.	CAPTAINS	MAJORS	LIEUT. COLS.	COLONELS	BRIG. GENS.	MAJ. GENS.	LIEUT. GENS.	TOTALS
ORGANIZATION CONSIDERED	1304.22	1399.60	420.86	162.22	103.29	76.67	21.18	3.03	3491.01
ENGINEER CORPS	5.38	4.69	11.32	11.95	24.37	2.46	0.	0.	60.35
MEDICAL DEPT.	9.16	75.51	67.06	18.31	14.55	3.25	0	0	187.82
CHAPLAINS	1.73	8.39	13.56	0.	0	0.	0.	0	23.68
TOTALS	1320.49	1488.15	512.74	192.48	142.21	82.34	21.18	3.03	3762.86

SCALE OF ORDINATES CURVE A

SCALE OF ORDINATES CURVE B

SCALE OF ABSCISSAE (YEARS)

NUMBER OF OFFICERS ON RETIRED LIST.

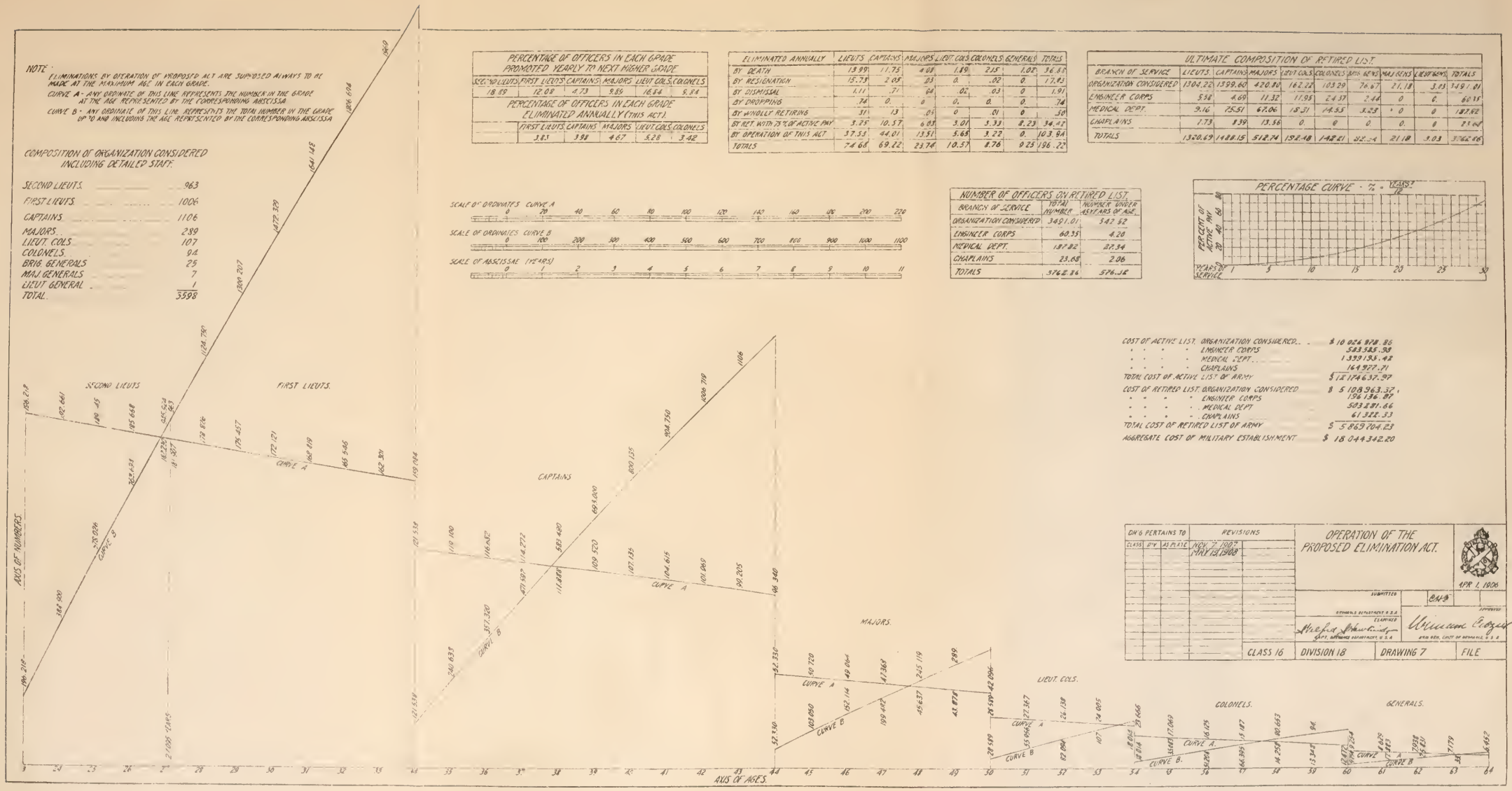
BRANCH OF SERVICE	TOTAL NUMBER	NUMBER UNDER 64 YEARS OF AGE
ORGANIZATION CONSIDERED	3491.01	542.92
ENGINEER CORPS	60.35	4.20
MEDICAL DEPT.	187.82	27.34
CHAPLAINS	23.68	2.06
TOTALS	3762.86	576.52

PERCENTAGE CURVE - % = YEARS/12

PERCENT OF ACTIVE PAY

YEARS OF SERVICE

COST OF ACTIVE LIST. ORGANIZATION CONSIDERED	$ 10 026 878.86
" " " " ENGINEER CORPS	583 585.38
" " " " MEDICAL DEPT.	1 359 358.42
" " " " CHAPLAINS	164 977.71
TOTAL COST OF ACTIVE LIST OF ARMY	$ 12 174 637.97
COST OF RETIRED LIST. ORGANIZATION CONSIDERED	$ 5 108 963.37
" " " " ENGINEER CORPS	156 136.89
" " " " MEDICAL DEPT	503 281.66
" " " " CHAPLAINS	61 322.33
TOTAL COST OF RETIRED LIST OF ARMY	$ 5 869 704.23
AGGREGATE COST OF MILITARY ESTABLISHMENT	$ 18 044 342.20



DWG PERTAINS TO			REVISIONS		OPERATION OF THE PROPOSED ELIMINATION ACT.		
CLASS	D'W	AS PLACE	NOV 7 1907				APR 1, 1906
			MAY 12 1908		SUBMITTED		
					CLASS 16	DIVISION 18	DRAWING 7	FILE

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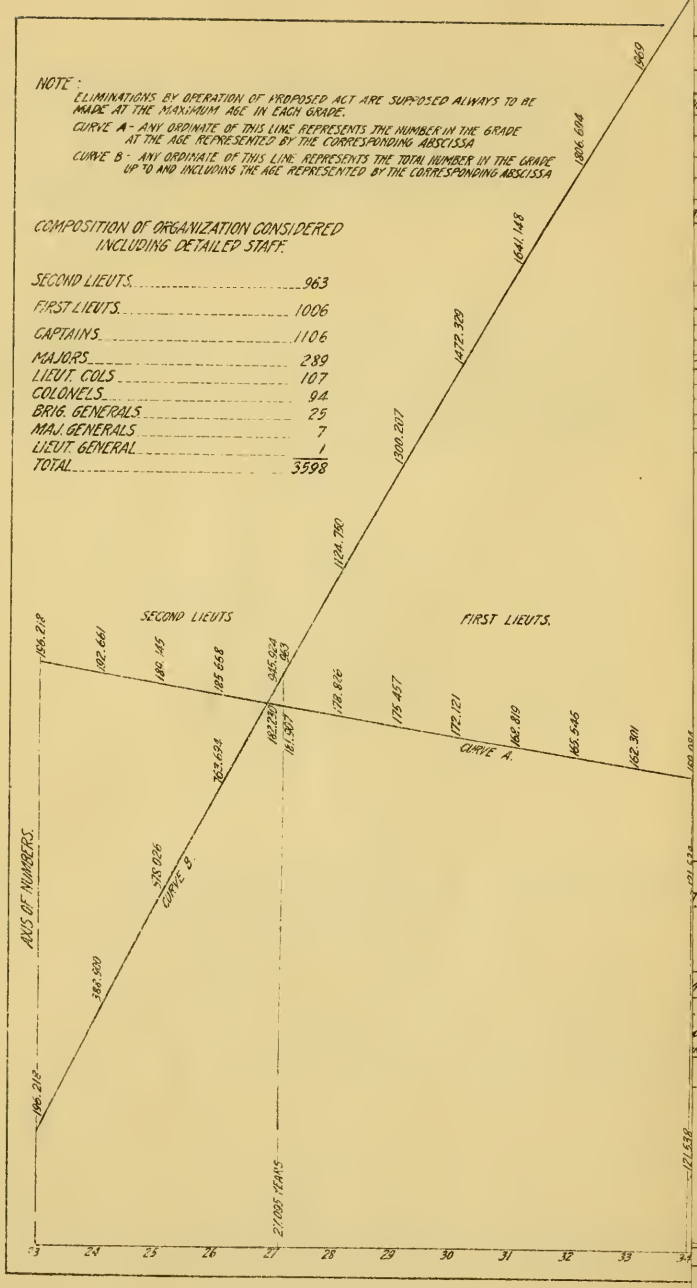

ITEMS.	TOTALS
3.03	3591.01
0.	60.35
0.	187.92
0	23.68
3.03	3762.86

sition of the entire retired list, the recruitments to it from the Engineer Corps, the Medical Department, and the chaplains, which have not been included in the organization considered, are added.

The cost of the military establishment, as shown on the table of cost, is made up by taking all the officers in the different grades on the active list and dividing them into groups in accordance with their length of service, so as to get the proper longevity pay of each, and then computing their pay from the Army pay tables. The cost of the retired list is obtained by taking the number of officers of the different grades from the table "Ultimate composition of retired list," and giving to each his retired pay, as determined by that which he was receiving at the time of retirement, of which he continues to receive 75 per cent. To the figures obtained from the organization considered are added those relating to the Engineer Corps, the Medical Department, and chaplains.

The table headed "Number of officers on retired list" is arranged to show the number of such officers who are under 45 years of age, and who might therefore be supposed to be capable of doing some service in time of need, in case their physical condition were not too bad.

The diagram entitled "Operation of the proposed elimination act," revised November 7, 1907, gives some data under the law as it is proposed to change it. The table whose first column is headed "Eliminated annually" gives the same data as the corresponding table in the first diagram, with the addition of a line which shows the number of officers of each grade who will be retired under the operation of the proposed act. The numbers which are eliminated from the different grades by reason of the ordinary causes, such as death, resignation, etc., are different from those in the corresponding table of the first diagram for the reason that the ages of the officers composing the different grades are different in the two schemes. By the table of the second diagram it is seen that there is a total of 196.22 eliminated each year, by all causes, under the proposed act, and this is the number which, as above, must enter the service as second lieutenants each year at the age of 23 in order to keep up the organization considered. This organization is the same as in the above table, giving a total number of 3,598 officers.

In the table headed "Percentage of officers in each grade promoted yearly to next higher grade" is given the percentage of the number in each grade who must be annually promoted to the grade above, through the occurrence of ordinary casualties and of casualties artificially created by the operation of the proposed act. In the first-mentioned table there is shown the number of casualties in each grade which will thus have to be annually created artificially.

The 196.218 officers who enter as second lieutenants each year at the age of 23 then commence to be operated upon by various causes, death, resignation, etc., and diminish in number each successive year, the inclination of curve A showing, as in the first diagram, the dwindling effect of these causes. Adding together the numbers corresponding to the different ages, on the horizontal line, we form the successive ordinates of curve B, as in the case above, any ordinate of this curve representing the number of lieutenants up to and including the corresponding age; the highest numbered ordinate, 1969, representing the total number of lieutenants considered. Running along this curve we find that corresponding to the average

age 27.095, the number is 963, the total number of second lieutenants in the organization; at this age, therefore, the number of officers, taken from curve A, 181.907, are promoted to first lieutenancies; which number is 18.89 per cent of the second lieutenants, none of whom are eliminated by the operation of the act.

The 181.907 officers promoted to be first lieutenants annually successively diminish, by natural casualties, until at the age of 34 there are 159.084 of them left. At this age 121.538 are promoted, being 12.08 per cent of the total number of first lieutenants and the remainder, 37.546 are eliminated by retirement under the act, in order to make room for the promotion of the statutory percentage of the second lieutenants.

The 121.558 captains diminish in the same manner each year until at the age of 44 there are 96.340 left; the various survivors at the different ages being added together form the successive ordinates of curve B, of which the highest numbered ordinate, 1106, is the total number of captains in the organization. At the age of 44, 52.330 captains are promoted, being 4.73 per cent of their total number; the remainder, 44.010, are retired under the act, in order to make room for the promotion of the statutory number of first lieutenants.

Similarly, it appears that 42.096 majors annually reach the age of 50, of whom 28.589 are promoted, being 9.89 per cent of the total number of majors, and 13.507 are retired; 23.666 lieutenant-colonels annually reach the age of 54, of whom 18.014 are promoted, 16.84 per cent of the total number of lieutenant-colonels, and 5.652 are retired.

Similarly, it appears that 12.472 colonels annually reach the age of 60, of whom 9.254 are promoted, being 9.84 per cent of the total number of colonels, and 3.218 are retired. The 9.254 colonels promoted to generals annually decrease due to natural causes until at the age of 64, 6.452 remain and this number are annually retired under the provisions of existing law. These statements are made under the supposition that all general officers are made from colonels. It is thus seen that in the second diagram, curve A shows, as in the first, the diminution in number of the officers who enter the service each year at the average age of 23; but because of the artificial eliminations that take place by the application of this act, the curve is not continuous, but breaks in passing from one grade to the next.

The ultimate composition of the retired list is shown by a table with that heading, and the percentage of active pay at the time of retirement for each officer is shown by the little diagram entitled "Percentage curve," in which the horizontal line at the bottom represents the number of years' service as an officer, and the vertical distances from the horizontal line to the curve show the corresponding percentage of active pay which will be received. Thus an officer retired after twenty years of service will receive $33\frac{1}{3}$ per cent of his pay at time of retirement.

The explanation of the tables of cost and of the number of officers on the retired list is the same as for the first diagram, showing the operation of existing laws.

NOTE.—It should be borne in mind that the operation of the proposed law, as indicated above, assumes that the natural casualties will occur in accordance with past experience under the present law. It is necessary to make this assumption, as it is impossible to predict what effect the proposed law would have upon the occurrence of casualties.

If the natural casualties under the proposed law should occur at a greater rate than assumed, it is evident that fewer officers would need to be eliminated artificially than are enumerated on the drawing, and, on the other hand, if the natural casualties should occur at a less rate, more officers would have to be eliminated artificially than shown on the drawing.

I urge most earnestly the favorable consideration of this bill, and regard the passage of this or some similar measure as indispensable to the efficiency of the Army.

Should your committee, in the consideration of this measure, desire the presence of those officers who have made a special study of this subject, for further explanation of its merits, they will be instructed to report as you may desire.

Very respectfully,

WM. H. TAFT,
Secretary of War.

CHAIRMAN COMMITTEE ON MILITARY AFFAIRS,
United States Senate.

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